SOMERSET COUNTY COUNCIL.

REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR

1923.

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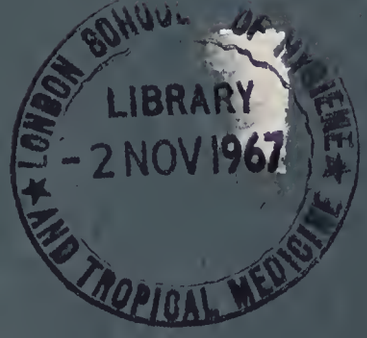
County Medical Officer of Health.

TAUNTON :

H. G. MOUNTER & Co., Ltd.,

Printers to His Majesty's Stationery Office,

and the Somerset County Council.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CONTENTS.

To the Chairman and Members of the Public Health and Housing Committee, Somerset County Council.

GENTLEMEN,

I beg to submit my fifteenth Annual Report upon the Health and Sanitary Administration of the County.

The Ministry of Health has arranged to supply the mortality statistics to each Medical Officer to save separate compilation, and these figures have been adopted in the Tables. The annual reports from Medical Officers have been received in every instance except two (Clutton and Weston-super-Mare). Eleven are not printed.

The report shows that the health of the community has been remarkably good as judged by the statistics available. The death rate is the lowest on record, so is the tuberculosis death rate, while the rate of infantile mortality has fallen to the strikingly low figure of 46 per thousand births. Health is purchasable, and while the health of the individuals making up a community cannot invariably be controlled it is eminently true that the health of the community is an article which can to a large extent be bought. Not only are most diseases preventable but many of them are preventable by efforts along clearly recognised lines. Applied along these lines the science of preventive medicine will supply results in an increased healthiness of the community. The touch-stone showing which are the right lines to follow is in my opinion found in the answer to the question as to whether the steps proposed are really preventive in scope and not merely palliative or curative to the individual. In the County tuberculosis and infant welfare schemes, for example, this preventive aspect is the predominant one and with excellent results.

At the present time there is a tendency to regard public health as including within its borders the care of the physically handicapped. While this may be proper work to undertake and be placed conveniently under the authority of the Public Health Committee it is no part of preventive medicine which is concerned with the prevention of the occurrence of these physical handicaps. The expenditure on the one is a loss to the community—that on the prevention of defects is repaid with interest at usury rates.

Steady improvement in the health of the community is, I believe, in large part due to the practice of preventive medicine along its appropriate and varied channels.

Your obedient Servant,

WILLIAM G. SAVAGE.

Weston-super-Mare.
July, 1924.

SECTION 1.

POPULATION.

BIRTHS AND DEATHS.

The population of the Administrative County as supplied by the Registrar General is 392,300. The Urban and Rural populations and those for each district are set out in Tables III and IV.

The birth rate for the year is 17.39 and is lower than in 1922 and below the average for the past 10 years. Of the births 258 were illegitimate, giving an illegitimate birth rate of 0.61. The birth rates in the individual districts are shown in Tables III. and IV.

The number of deaths, and the death rates are shown in Tables II. III. and IV.

These figures are now corrected, as regards the distribution of deaths, to the districts to which they properly belong. The figures have not, however, been corrected for age and sex distribution. This is carried out by the use of standardizing factors (those from the new Census are not yet available).

	Net Death-rate.	Standardizing Factor.	Standardized Death-rate.
Rural Districts	11.43	0.8406	9.61
Urban Districts	11.24	0.9164	10.30
Administrative County	11.35	0.8699	9.87
England and Wales	11.6	——	11.6

The death rate even when uncorrected is the lowest on record for the County and also for both Urban and Rural Districts. When corrected for age and sex distribution to compare with England and Wales it is 9.87 to 11.6.

With the very low death rates now being recorded, no great reductions can be expected in the crude figures. What may be expected and hoped for is a postponement of the period of death to a later age period. In this connection the following figures are very interesting—

Proportion of the deaths in each year divided amongst the different age groups.

TABLE 1.

	Under 1 year.	1—45.	45—65.	65 and over.
1911	12.9	21.0	20.8	45.3
1912	10.6	21.0	23.0	45.4
1913	10.8	23.3	21.0	44.9
1914	9.2	22.0	22.3	46.5
1920	9.7	19.1	22.3	48.9
1921	9.3	18.0	23.1	49.6
1922	6.6	17.3	22.2	53.9
1923	7.0	18.7	23.1	51.2

Table I shows the great postponement of the age of death which has taken place.

In table B. at the end of the Report the causes of death are set out. This table shews that diseases of the heart and of the arteries are responsible for the largest number of deaths from one single group of causes, that lung diseases are the next largest group, while cancer and other forms of malignant disease form another most important group. Tuberculosis is now diminishing somewhat in importance.

Cancer is still baffling efforts at prevention and is increasing. 556 deaths are notified as due to Cancer or other forms of malignant disease. At the present time we are nearly powerless to prevent the occurrence of Cancer, since we are ignorant, both as to the cause and as to the methods of spread of this malignant disease. We can, however, do something to prevent the mortality from Cancer by disseminating sound advice as to the need for early recognition and treatment of the disease. Early operative treatment will save many lives.

The death rates in the different districts are shown in Tables III and IV. With small populations, considerable fluctuations are to be expected, and the healthiness of one district with another can only be compared if a number of years is taken, and also if the age and sex distribution is known, so that correction can be made for this factor.

INFANTILE MORTALITY.

During the year 313 children died under one year of age, giving an infantile mortality rate of 45.89 per 1,000 births.

The Urban and Rural rates for 1923 and the previous ten years are set out in Tables II., III, and IV. These Tables shew that the infantile mortality rate in the Rural Districts was 46.76 and in the Urban Districts 44.51. These rates are again very low and are the lowest on record.

55 per. cent. of the deaths took place before the child was a month old. Only 138 babies died over 1 month and under 1 year, or 20 per 1,000 births. This is a remarkable and satisfactory achievement.

TABLE II.

Rural Districts.

Year.	Population estimated to Middle of each Year.	Births.		Deaths Under One Year of Age.		Deaths at all Ages. Total.	
		Number.	Rate.	Number.	Rate per 1,000 Births registered.	Number	Rate.
1913	232,085	4,578	19.7	288	62.9	2,920	12.6
1914	232,313	4,165	17.9	255	61.2	2,907	12.5
1915	218,801	4,078	18.6	288	70.6	3,247	14.8
1916	209,223	3,970	17.44	232	58.4	2,940	14.05
1917	199,385	3,321	14.94	236	71.06	2,892	14.50
1918	198,808	3,270	14.68	190	58.10	3,041	15.30
1919	206,946	3,480	16.14	224	64.37	2,963	14.32
1920	215,192	4,943	22.97	271	54.82	2,669	12.40
1921	225,074	4,451	19.78	252	56.62	2,594	11.53
1922	225,651	4,198	18.60	197	46.93	3,008	13.33
Averages for years 1913—1922	216,348	4,045	18.7	243	60.1	2,918	13.5
1923	227,600	4,170	18.32	195	46.76	2,602	11.43

Urban Districts.

1913	161,745	2,958	18.3	242	81.8	1,981	12.2
1914	163,733	2,862	17.5	204	71.3	2,012	12.3
1915	150,057	2,666	17.7	230	86.65	2,279	15.2
1916	146,526	2,702	16.95	168	62.18	2,069	14.12
1917	141,420	2,058	13.05	151	73.4	1,949	13.78
1918	143,374	2,181	13.58	134	61.44	2,294	16.00
1919	151,273	2,212	14.04	152	68.72	2,082	13.76
1920	157,301	3,320	21.07	178	53.61	1,960	12.46
1921	162,025	3,055	18.86	168	54.99	1,906	11.76
1922	163,495	2,740	16.76	137	50.00	2,078	12.71
Averages for years 1913—1922	154,095	2,675	17.4	176	65.9	2,061	13.4
1923	164,700	2,651	16.10	118	44.51	1,852	11.24

TABLE III.

Table showing, for each Rural District, the number of Births and Deaths, the number of Deaths of Infants, also the Birth Rate, Death Rate, and Rate of Infantile Mortality.

DISTRICT.	Area.	No. of Births.	No. of Deaths.	No. of Deaths Under 1 Year.	Population.	Birth Rate.	Death Rate.	Standardized Death Rate.	Rate of Infantile Mortality.
RURAL :—									
1. Axbridge	93,036	424	298	17	23,220	18.26	12.83	10.66	40.1
2. Bath	27,360	234	146	14	14,740	15.88	9.91	9.04	59.8
3. Bridgwater	87,516	356	247	24	17,570	20.26	14.06	11.47	67.4
4. Chard	55,236	222	147	15	12,690	17.49	11.58	9.93	67.6
5. Clutton	41,133	336	150	14	16,180	20.77	9.27	8.05	41.7
6. Dulverton	78,980	86	64	10	4,524	19.01	14.15	11.9	116.3
7. Frome	51,558	193	132	11	10,820	17.84	12.20	10.32	57.0
8. Keynsham	21,405	170	90	7	10,760	15.80	8.36	7.37	41.2
9. Langport	59,407	234	180	7	12,690	18.44	14.18	11.33	29.9
10. Long Ashton	47,900	337	192	10	18,050	18.67	10.64	9.22	29.7
11. Shepton Mallet	46,561	177	107	6	9,778	18.10	10.94	9.29	33.9
12. Taunton	71,720	299	178	10	16,100	18.57	11.06	9.32	33.4
13. Wellington	34,626	96	62	1	5,808	16.53	10.67	8.74	10.4
14. Wells	58,119	180	118	20	10,290	17.49	11.47	9.49	111.1
15. Williton	97,710	199	138	6	11,640	17.10	11.86	9.57	30.2
16. Wincanton	64,540	293	187	14	15,900	18.43	11.76	9.86	47.8
17. Yeovil	54,898	334	166	9	16,840	19.83	9.86	8.19	26.9
Totals of Rural Population	991,705	4,170	2,602	195	227,600	18.32	11.43	9.61	46.76

TABLE IV.

Table showing, for each Urban District, the number of Births and Deaths, the number of Deaths of Infants, also the Birth Rate, Death Rate, and Rate of Infantile Mortality.

DISTRICT. URBAN :—	Area.	No. of Births.	No. of Deaths.	No. of Deaths Under 1 Year.	Population.	Birth Rate.	Death Rate.	Standardized Death Rate.	Rate of Infantile Mortality
1. Bridgwater	930	326	173	14	16,240	20.07	10.65	9.76	42.9
2. Burnham	1,481	65	55	2	4,898	13.27	11.23	10.24	30.8
3. Chard	442	75	62	3	4,408	17.01	14.07	12.33	40.0
4. Clevedon	3,017	74	93	4	6,240	11.86	14.90	12.00	54.1
5. Crewkerne	1,243	68	42	5	3,739	18.19	11.23	10.40	73.5
6. Frome	1,194	174	116	9	10,670	16.31	10.87	9.63	51.7
7. Glastonbury	5,019	81	50	5	4,356	18.60	11.48	10.25	61.7
8. Highbridge	744	41	25	1	2,488	16.48	10.05	9.51	24.4
9. Ilminster	531	31	26	0	2,322	13.35	11.20	9.71	0.0
19. Midsomer Norton	3,970	161	72	4	7,981	20.17	9.02	9.12	24.8
11. Minehead	2,470	82	67	3	5,181	15.83	12.93	12.62	36.6
12. Portishead	1,029	56	65	1	3,752	14.93	17.32	16.34	17.9
13. Radstock	1,014	76	27	3	3,765	20.19	7.17	6.55	39.5
14. Shepton Mallet	3,548	65	39	5	4,294	15.14	9.08	7.94	76.9
15. Street	2,742	66	50	3	4,433	14.89	11.28	10.94	45.5
16. Taunton	1,390	383	258	22	24,500	15.63	10.53	10.18	57.4
17. Watchet	493	36	27	0	1,819	19.79	14.84	13.13	0.0
18. Wellington	5,295	104	106	6	7,102	14.64	14.93	13.47	57.7
19. Wells	719	80	45	2	4,346	18.41	10.35	8.55	25.0
29. Weston-s-mare	2,412	323	314	15	25,320	12.76	12.40	11.10	46.4
21. Wiveliscombe	201	26	16	2	1,256	20.70	12.74	10.84	76.9
22. Yeovil	854	258	124	9	15,590	16.55	7.95	7.87	34.9
Totals of Urban Population	40,738	2,651	1,852	118	164,700	16.10	11.24	10.30	44.51
Administrative County	1,032,443	6,821	4,454	313	392,300	17.39	11.35	9.87	45.89
England and Wales, 1923		.....	.....	.....	.....	19.7	11.6	11.6	69

SECTION II.

INFECTIOUS DISEASES.

TABLE V.

Showing distribution of cases of Scarlet Fever, Diphtheria, Enteric Fever, Puerperal Fever, Ophthalmia Neonatorum, and Cerebro-spinal Meningitis.

URBAN DISTRICTS.	Scarlet Fever.	Diphtheria.	*Enteric Fever.	Puerperal Fever.	Ophthalmia Neonatorum.	Cerebro-spinal Meningitis.
Bridgwater ..	57	7	0	0	2	2
Burnham	2	0	0	0	1	0
Chard	5	0	0	0	0	0
Clevedon	6	0	0	0	0	0
Crewkerne	9	0	0	0	0	0
Frome	28	0	0	0	0	0
Glastonbury ..	0	0	0	0	0	0
Highbrigde ..	0	1	1	0	0	0
Ilminster	0	0	0	0	1	0
Midsomer Norton ..	25	2	1	0	0	0
Minehead	3	1	0	0	0	0
Portishead	4	0	0	0	0	0
Radstock	23	4	0	0	0	0
Shepton Mallet ..	2	1	0	0	0	0
Street	3	2	1	0	0	0
Taunton	47	16	2	3	7	1
Watchet	0	5	0	0	0	0
Wellington ..	41	0	0	0	0	1
Wells	1	1	0	0	1	0
Weston-super-Mare	67	25	0	0	2	0
Wiveliscombe ..	3	0	0	0	0	0
Yeovil	12	1	0	2	5	1
Total	338	66	5	5	19	5

RURAL DISTRICTS.	Scarlet Fever.	Diphtheria.	*Enteric Fever.	Puerperal Fever.	Ophthalmia Neonatorum.	Cerebro-spinal Meningitis.
Axbridge	58	31	0	1	2	0
Bath	66	4	0	0	0	0
Bridgwater	26	3	1	0	0	1
Chard	28	2	0	0	0	0
Clutton	30	14	0	3	0	0
Dulverton	2	7	0	0	0	0
Frome	27	3	0	2	0	0
Keynsham	54	16	2	1	0	0
Langport	85	1	0	0	1	0
Long Ashton	120	7	3	1	4	0
Shepton Mallet	4	1	1	0	0	1
Taunton	32	1	3	2	0	0
Wellington	9	1	0	0	0	0
Wells	3	2	2	0	1	0
Williton	11	1	1	0	0	0
Wincanton	30	11	4	0	0	0
Yeovil	17	1	0	2	4	0
***Including paratyphoid.**						
Total	602	106	17	12	12	2

Small Pox. The County has been exceptionally free from small-pox for the previous fourteen years, no cases having been notified since 1909 until 1923. The possibility of its introduction has always been a matter of great anxiety in view of the nearly negligible provision in the County for the isolation of cases.

In April 1923, the Ministry of Health issued an order for the County of Somerset. Under these regulations the County Council became the Authority for providing isolation and treatment for small-pox in the administrative County, excluding the Boroughs of Chard and Yeovil and the Rural District of Chard, areas which already possessed small-pox isolation accommodation. Steps to prevent the spread of infection and to investigate the source of the outbreak are still in the hands of the Local Sanitary Authorities and their officers.

Early in 1923 the County Council approved the provision of two Small-pox Hospitals to deal with cases from all over the County, and obtained one site near Chew Magna for the Northern part of the County, and a second at Cossington for the County south of the Mendips. On the Cossington site a small Small-pox Hospital with provision for eight beds was provided at a total cost of about £1,600. A motor ambulance was also provided.

The Chew Magna site was provided with a water supply, but otherwise is not at present being developed.

The small Hospital on the Polden Hills is not intended to be a full provision against small-pox, but it will serve to take isolated cases or, should an extensive epidemic occur, the first few cases. It will then be possible to make further provision on these sites for additional cases. Apart from rent and rates the cost of maintenance is only a few pounds a year as no paid staff is maintained. Arrangements are made for obtaining a professional staff within a few hours notice.

Two cases of small-pox were notified during the year. In one case the infected person developed the disease in the County but returned to his home outside the county before a doctor was called in and the condition diagnosed. The other case occurred at Coleford and was isolated in the home, as fortunately this was a little distance from other houses. All but one of the inmates were removed to the Frome Isolation Hospital. The County Hospital was not completed in time to take these cases.

Special efforts were made to prevent the spread of infection, and fortunately there were no other cases. A good many suspected cases from different parts of the County were reported for further inquiry but none were small-pox. In view of the extensive prevalence of this disease in an adjoining county, Somerset escaped very lightly.

Scarlet Fever. There was a considerable prevalence of this disease 940 cases being notified. The distribution is shown in Table V. It was decidedly more prevalent in the Rural than in the Urban areas. Most cases were notified from Long Ashton and Langport Rural.

In Long Ashton Rural District most of the cases were from the parishes of Easton-in-Gordano, Long Ashton and Nailsea. The Medical Officer of Health attributes the difficulty in checking the outbreak largely to the overcrowded condition of many of the houses, and to the mild character of the disease. Several were discovered in the "peeling" stage and these had probably infected others before they were isolated. The Isolation Hospital for the district was only opened July 23rd but 50 cases were admitted between that date and the end of the year.

There were 7 deaths, the case mortality being 0.74. As in previous years the majority of the cases were mild.

Diphtheria. Only 172 cases notified, with 12 deaths, a case mortality of 6.9. Most of the districts supply antitoxin free for poor cases.

Ophthalmia Neonatorum. 31 cases notified, being slightly below the average.

Enteric and Paratyphoid Fever. 22 cases notified, with 5 deaths. As Table V shows they were mostly scattered cases and I am unaware of any connection between most of them. It is doubtful if these cases were really all Enteric Fever. Most of the reports contain no comments on these cases, but as regards the three in Taunton Rural, Dr. Poole's remarks suggest a doubt as to whether any were really Enteric Fever.

Other Notifiable Diseases. These are shown in Tables V and VI. There was no special prevalence of any of them.

Measles and Whooping Cough. The following table gives the deaths from these diseases in five year groups so far back as statistics are available :—

	Average number of deaths per year.					
	MEASLES.			WHOOPING COUGH.		
Period.	Rural.	Urban.	County.	Rural.	Urban.	County.
1901—03	33	38	71	42	23	65
1904—08	15	20	35	31.5	23.5	55
1909—13	17	20	37	27	17	44
1914—18	11.5	11.5	23	20	19	39
1919—23	6	5	11	14	9	23

These diseases are not notifiable and therefore I do not know the extent to which the number of cases is diminishing. Both diseases come in outbreaks every few years which usually spread over most parts of the County. The actual number of deaths varied for measles from 1 and 3 in 1921 and 1917 respectively to 104 in 1913 and 128 in 1902. The whooping cough deaths have been more uniform, the lowest being 14 in 1922 and the highest 91 in 1907. In 1923 there were 16 deaths from measles and 32 from whooping cough. Returns as to prevalence are available from the schools, and although these are not complete they suggest that there may have been some diminution in prevalence during the last few years. The reduction in the deaths, however, is out of all proportion to any possible diminution in prevalence.

The table shows that as regards both diseases there has been a notable and steady decline in their mortality. This is, I believe, due in the main to the steady persistence of Public Health work, chiefly along educative lines. Part may be due to a possible lessened severity of type.

The prevention of cases of measles and whooping cough are amongst the most difficult problems of Public Health, and no real success has been attained. While we can do but little to prevent infection we can do a great deal to reduce the damage from them. The aim we have constantly in view is that a child should pass through an attack of measles and whooping cough without any damage to its health at the end of it. This is an exceedingly important desideratum. Both diseases are an important predisposing cause to the development of tuberculosis, while many complications leading to serious damage to health result from these diseases.

To attain this object two lines of attack are open :—

(a) To postpone attacks of these diseases as late as possible. The earlier in childhood of the attack the greater the risk of death and the liability to complications.
(b) To instruct parents in the importance of these diseases as a cause of permanent ill-health and death, to point out the way to look after these cases, and the dangers of neglect.

Although educative work has been done since 1910, it is only since 1917 that this educative action has been part of the work of the County Health Visitors. They have been specially instructed to work along the above lines.

The gain shown in these tables is one of saving in deaths but I believe equally important, and one which I cannot show statistically, is the diminution in damage to the children owing to better care and attention. If this contention is true it represents Public Health prevention work of the highest importance.

TABLE VI.

URBAN DISTRICTS.	Dysentery.	Malaria.	Acute Primary Pneumonia.	Acute Influenzal Pneumonia.	Acute Poliomyelitis.	Acute Encephalitis Lethargica.
Bridgwater	0	0	3	0	0	0
Burnham	0	0	0	0	0	1
Chard	0	0	10	1	0	0
Clevedon	0	0	0	0	0	0
Crewkerne	0	0	0	0	0	0
Frome	0	0	0	0	0	0
Glastonbury	0	0	4	0	0	1
Highbridge	0	0	0	0	0	0
Ilminster	0	0	2	0	3	0
Midsomer Norton	0	0	0	6	0	0
Minehead	0	0	0	0	0	0
Portishead	0	0	0	0	0	0
Radstock	0	1	2	1	0	0
Shepton Mallet	0	0	1	0	0	0
Street	0	0	0	10	0	0
Taunton	0	1	10	3	0	2
Watchet	0	0	0	0	0	0
Wellington	0	0	4	0	0	0
Wells	0	0	4	2	0	1
Weston-super-Mare ..	0	0	3	0	0	0
Wiveliscombe	0	0	1	0	0	0
Yeovil	0	0	10	1	0	0
Total	0	2	54	24	3	5

RURAL DISTRICTS.	Dysentery.	Malaria.	Acute Primary Pneumonia.	Acute Influenzal Pneumonia.	Acute Poliomyelitis.	Acute Encephalitis Lethargica.
Axbridge	0	0	12	17	1	2
Bath	0	0	0	0	0	0
Bridgwater	0	0	2	0	0	0
Chard	0	0	23	4	1	0
Clutton	0	0	7	3	0	0
Dulverton	0	0	0	0	0	0
Frome	0	0	8	0	0	1
Keynsham	0	0	7	1	1	0
Langport	0	0	2	0	0	0
Long Ashton	0	0	10	0	0	0
Shepton Mallet	0	0	3	0	0	0
Taunton	8	0	12	7	0	0
Wellington	0	0	1	0	0	0
Wells	0	0	16	1	0	0
Williton	0	0	1	0	0	0
Wincanton	0	0	10	0	0	0
Yeovil	0	0	7	1	1	0
Total	8	0	121	34	4	3

ISOLATION HOSPITAL ACCOMMODATION.

No further additions have been made to the number of isolation hospitals in the County during the year under review, but some steps were taken as regards preparation of plans, etc.

The steps taken to provide Hospital accommodation for Small-pox cases have already been described.

TABLE VII.

Cases Removed to Isolation Hospitals.

DISTRICT.	Cases removed to Hospital.				Percentage of Cases removed to Hospital.		
	Scarlet Fever.	Diph-theria.	Enteric Fever.	Other Diseases.	Scarlet Fever.	Diph-theria.	Enteric Fever.
URBAN :—							
Bridgwater	42	0	0	0	100	0	—
Burnham	0	0	0	0	0	—	—
Chard	0	0	0	0	0	—	—
Clevedon	5	0	0	0	83	—	—
Crewkerne	0	0	0	0	0	—	—
Frome	27	0	0	0	96	—	—
Glastonbury	0	0	0	0	—	—	—
Highbridge	0	0	0	0	—	0	0
Ilminster	0	0	0	0	—	—	—
Midsomer Norton ..	6	0	0	0	24	0	0
Minehead	3	1	0	1	100	100	—
Portishead	0	0	0	0	0	—	—
Radstock	3	0	0	0	13	0	—
Shepton Mallet	2	1	1	0	100	100	100
Street	3	0	0	0	100	0	0
Taunton	36	14	2	6	77	88	100
Watchet	0	0	0	0	—	0	—
Wellington	28	0	0	0	68	—	—
Wells	1	0	0	0	100	0	—
Weston-super-Mare ..	64	20	0	0	96	80	—
Wiveliscombe	0	0	0	0	0	—	—
Yeovil	12	0	0	0	100	0	—
Total Urban	232	36	3	7	69	55	60
RURAL :—							
Axbridge	0	0	0	0	0	0	—
Bath	25	4	0	0	38	100	—
Bridgwater	1	1	0	1	4	33	0
Chard	0	0	0	0	0	0	—
Clutton	0	0	0	0	0	0	—
Dulverton	0	0	0	0	0	0	—
Frome	12	0	0	0	44	0	—
Keynsham	38	13	0	0	70	81	0
Langport	60	1	0	0	71	100	—
Long Ashton	50	2	1	0	42	29	33
Shepton Mallet	2	0	0	0	50	0	0
Taunton	15	1	2	0	47	100	67
Wellington	0	0	0	0	0	0	—
Wells	0	0	0	0	0	0	0
Williton	8	1	0	0	73	100	0
Wincanton	20	9	0	0	67	82	0
Yeovil	0	0	0	0	0	0	—
Total Rural	231	32	3	1	38	30	18
County Total	463	68	6	8	49	40	27

VENEREAL DISEASES.

The attendances of Somerset cases at the different clinics for the year 1923 were as follows :—

TABLE VIII.

Clinic.	New cases	Attend-ances.	New Cases.				Attendances.		
			1920.	1921.	1922	Increase or decrease during 1923.	1921.	1922.	Increase or decrease during 1923.
Bath	24	226	45	32	17	+ 7	307	338	—112
Bristol General Hospital	15	159	20	15	6	+ 9	187	129	+ 30
Bristol Royal Infirmary	37	269	59	48	37	0	336	190	+ 79
Taunton	61	932	143	116	75	—14	1,675	1,063	—131
Yeovil	20	204	49	24	16	+ 4	282	173	+ 31
Bridgwater	36	456	22	35	33	+ 3	337	352	+104
Chard	2	4	7	1	1	+ 1	20	1	+ 3
Frome	8	98	22	10	8	0	126	83	+ 15
Glastonbury	3	22	7	4	4	— 1	28	21	+ 1
Minehead	10	208	4	5	9	+ 1	45	167	+ 41
Radstock	5	42	1	6	11	— 6	33	101	— 59
Weston-super-Mare	39	581	57	50	29	+10	506	502	+ 79
Wincanton	0	1	2	0	5	— 5	0	56	— 55
All Clinics	260	3,202	438	346	251	+ 9	3,882	3,176	+ 26

The year 1920 showed most new cases attending the clinics, and since then there has been a decline. 1923 and 1922 show practically the same figures and suggest that we have reached a level of attendances which may not decline further unless more active preventive measures are possible and are carried out. It will be noted that some of the clinics started as subsidiary ones—*i.e.*, at Bridgwater and Weston-super-Mare, have assumed considerable importance. The system of subsidiary clinics does enable every case to obtain efficient treatment reasonably near his or her home, while expense is saved in paying travelling expenses in certain cases.

Very little propaganda work has been done during the year, but a few lectures and addresses were given. It is very difficult to arouse interest in this subject. This is unfortunate because from the public health standpoint Venereal Diseases are of extreme importance since they are a cause of wide-spread ill health, of numerous crippling conditions and indirectly of many deaths.

TUBERCULOSIS.

A start was made during the year in developing the Quantock Lodge Estate for tuberculosis cases. Plans and estimates were approved by the Committee, a contract for the reconstruction work was let in the autumn and the alterations started towards the end of the year.

The arrangement with Cranham Lodge terminated on 30th September, 1923. Some difficulty was experienced in obtaining suitable outside beds and during the year County Council cases had to be sent to different parts of the country. It was possible, however, to arrange accommodation for all of them.

TABLE IX.

Year.	Phthisis Death Rates			Other Tuberculous Diseases.			Tuberculosis Death-rate	Deaths in a population of 390,000.	
	Rural.	Urban.	County.	Rural.	Urban.	County.	County.	Phthisis.	All Tuberculosis
1901	0.88	0.84	0.871	0.18	0.23	0.202	1.073	340	418
1902	0.86	0.89	0.877	0.20	0.19	0.201	1.078	342	420
1903	0.94	0.76	0.879	0.19	0.34	0.251	1.130	343	441
1904	0.99	0.97	0.989	0.20	0.34	0.255	1.244	386	485
1905	0.90	0.91	0.905	0.14	0.18	0.162	1.067	353	416
1906	0.90	0.86	0.890	0.13	0.37	0.221	1.111	347	433
1907	0.83	0.85	0.842	0.24	0.26	0.253	1.095	328	427
1908	0.91	0.93	0.922	0.24	0.31	0.274	1.196	360	466
1909	0.82	0.85	0.833	0.24	0.27	0.255	1.088	325	424
1910	0.98	0.78	0.912	0.16	0.24	0.197	1.109	356	433
1911	0.83	0.76	0.804	0.15	0.39	0.240	1.044	314	407
1912	0.69	0.90	0.778	0.17	0.20	0.191	0.970	303	378
1913	0.74	0.67	0.721	0.15	0.30	0.239	0.960	281	374
1914	0.86	0.79	0.833	0.21	0.26	0.232	1.065	325	415
1915	0.84	1.13	0.960	0.18	0.23	0.201	1.160	374	452
1916	0.75	0.97	0.838	0.16	0.25	0.194	1.032	327	402
1917	0.90	1.05	0.962	0.18	0.21	0.191	1.153	375	450
1918	1.09	1.30	1.180	0.21	0.24	0.225	1.403	460	547
1919	0.85	0.90	0.871	0.21	0.22	0.212	1.083	341	422
1920	0.65	0.93	0.765	0.14	0.27	0.196	0.961	298	375
1921	0.63	0.76	0.685	0.16	0.30	0.220	0.904	267	353
1922	0.75	0.78	0.761	0.18	0.18	0.180	0.941	297	367
1923	0.65	0.76	0.696	0.19	0.22	0.206	0.902	271	352

This table shows a considerable decrease in the death rates from all varieties of tuberculosis, but an increase in the non-pulmonary death rate. The number of notifications shows a decline which probably represents a real decrease in the number of clinical cases of the disease.

The death rate from tuberculosis is the lowest on record. The actual results achieved are most clearly seen when the figures are calculated on a standard population of 390,000, which is nearly the present administrative County population. These figures are set out and show that about 70 less persons are now dying from tuberculosis in the county than would have been the case 20—22 years ago with the same population. This is a very remarkable decrease and represents an enormous saving in disease and ill health apart from deaths.

In striking contrast is the fact that the death rate for other varieties of tuberculosis has not decreased at all for this period. This is hardly to be wondered at, as a considerable proportion of it is due to infection from tuberculous milk and nothing is being done to deal with this source of human infection.

The following figures show the deaths, notifications and number of cases under supervision since 1913 :—

TABLE X.

Year.	Deaths.	*Notifications.	Living Cases.
1913	377	958	429
1914	422	984	832
1915	428	933	1,238
1916	467	872	1,538
1917	393	1,036	2,053
1918	480	949	2,417
1919	388	922	2,864
1920	358	860	3,286
1921	350	882	3,754
1922	366	732	4,120
1923	354	707	4,473

*These are primary cases only and do not include institutional cases.

Number of Cases.—The following table shows the notifications, deaths, etc., from tuberculosis in each district.

TABLE XI.

Tuberculosis Notifications and Deaths.

URBAN DISTRICTS.	Number of cases notified.				Number of primary notifications per 1000 population.	Number of Deaths during the year from Pulmonary Tuberculosis.	Number of Deaths during the year from other varieties of Tuberculosis
	Pulm.		Non-Pulm.				
	Inst.	Non-Inst.	Inst.	Non-Inst.			
Bridgwater ..	13	28	–	7	2·15	11	0
Burnham ..	0	5	–	0	1·02	6	0
Chard	2	5	–	4	2·04	5	3
Clevedon ..	7	5	–	3	1·28	6	3
Crewkerne ..	3	7	–	4	2·94	1	1
Frome	3	10	–	5	1·40	9	1
Glastonbury ..	0	3	–	1	0·92	1	2
Highbridge ..	0	4	–	0	1·61	3	0
Ilminster ..	0	4	–	2	2·53	2	0
Midsomer Nort'n	2	9	1	3	1·50	6	2
Minehead ..	1	3	1	0	0·58	6	1
Portishead ..	0	8	–	1	2·40	2	3
Radstock ..	0	2	–	1	0·80	2	0
Shepton Mallet	7	15	–	2	3·96	4	0
Street	0	5	–	4	2·03	5	2
Taunton ..	19	52	–	10	2·53	20	6
Watchet ..	0	6	–	1	3·85	1	0
Wellington ..	20	24	–	1	3·52	9	3
Wells	0	13	–	3	3·68	2	0
Weston-s.-Mare	1	39	–	6	1·78	14	8
Wiveliscombe ..	0	4	–	0	3·18	1	1
Yeovil	7	22	–	9	1·99	10	1
Totals ..	85	273	2	67	2·06	126	37

RURAL DISTRICTS.	Number of cases notified.				Number of primary notifications per 1000 population.	Number of Deaths during the year from Pulmonary Tuberculosis.	Number of Deaths during the year from other varieties of Tuberculosis.
	Pulm.		Non-Pulm.				
	Inst.	Non-Inst.	Inst.	Non-Inst.			
Axbridge ..	11	34	1	9	1·85	19	6
Bath	5	20	1	2	1·49	7	1
Bridgwater ..	10	32	–	1	1·88	15	7
Chard	4	28	–	6	2·69	10	3
Clutton ..	2	11	1	5	0·99	9	3
Dulverton ..	0	11	–	3	3·95	2	2
Frome	1	7	–	2	0·83	5	1
Keynsham ..	3	9	1	1	0·93	10	1
Langport ..	2	17	–	5	1·73	10	3
Long Ashton ..	8	16	–	7	1·27	7	6
Shepton Mallet	4	11	–	1	1·23	5	1
Taunton ..	3	34	–	7	2·55	13	4
Wellington ..	0	7	–	0	1·20	5	0
Wells	1	24	1	2	2·53	10	1
Williton ..	1	19	–	3	1·89	5	2
Wincanton ..	4	8	–	6	0·88	8	2
Yeovil	6	17	1	2	1·13	7	1
Totals ..	65	305	6	62	1·61	147	44

In my Report for last year the preventive side of the work was set out in detail. This need not be repeated, but it is worth pointing out that in the Somerset Scheme the preventive side of the work is greatly developed and throughout regarded as the essential side.

The following Tables show the extent to which contacts have been examined by the Tuberculosis Officers and apart from cases which may have been examined by their own Medical attendants.

TABLE XII.

Examination of Contacts (Primary).

1923 Cases.

Age.	Examined.						Not yet examined		Total.		
	Positive.		Negative.		Suspicious						
	P.	N.P.	P.	N.P.	P.	N.P.	P.	N.P.	Pulmonary	Non-Pulmonary	All Tuberculosis.
Under 14	32	7	201	26	12	1	308	118	553	152	705
Over 14	105	8	116	21	19	1	841	250	1,081	280	1,361
	137	15	317	47	31	2	1,149	368	1,634	432	2,066

P.—Pulmonary. N.P.—Non-Pulmonary.

TABLE XIII.

Examination of Contacts (Primary Cases).

1922 Cases at end of 1923.

Age.	Examined.						Not yet examined		Total.		
	Positive.		Negative.		Suspicious						
	P.	N.P.	P.	N.P.	P.	N.P.	P.	N.P.	Pulmonary	Non-Pulmonary	All Tuberculosis.
Under 14	66	6	233	38	15	1	335	84	649	129	778
Over 14	87	11	129	14	12	2	1,031	217	1,259	244	1,503
	153	17	362	52	27	3	1,366	301	1,908	373	2,281

P.—Pulmonary. N.P.—Non-Pulmonary.

Table XII. shows that 26.57 per cent. of the contacts attended for examination, the corresponding figure for 1922 being 23.89 per cent. Of the contacts of pulmonary tuberculosis cases 34.64 per cent. showed suspicious or definite signs of tuberculosis, as compared with 35.3 per cent. last year, and 53.7 per cent. in the previous year.

TABLE XIV.

Summary of Treatment given during 1923.

Nature of Treatment Given.	Number of Cases.		
	County Treatment.	Other than County.	Total.
Domiciliary with shelter	34	—	34
,, without shelter	59	145	204
Sanatorium	180	—	180
,, with Dispensary	30	—	30
,, ,, Domiciliary (without shelter)	37	—	37
,, ,, Domiciliary (with shelter)	6	—	6
,, ,, Dom. and Disp.	1	—	1
Dispensary, with shelter	3	—	3
,, without shelter	179	—	179
Hospital—In patient	—	37	37
,, Out patient	—	3	3
In Workhouse Infirmary	—	4	4
Under private medical treatment (details not available)	—	71	71

Note :—37 of these cases were under treatment, but had not been notified as there was some doubt at the time as to whether they were actually suffering.

In addition to other forms of treatment, dental treatment was provided in 14 cases, milk for a period of two months to 71 cases and nursing for 2 cases.

Table XV. shows that of the 789 cases who were given treatment in 1923, sanatorium treatment was given to 254, dispensary without sanatorium treatment to 182, domiciliary without sanatorium or dispensary treatment to 238, while 115 were either under private medical treatment, and no information is available as to the variety of treatment given, or were treated in other ways.

The 71 cases under private medical treatment are "Not to be visited" cases, including cases in comfortable circumstances, and those in County Asylums, etc.

Dr. Short, County Tuberculosis Officer, has drawn up the following tables and remarks dealing with the treatment given under the County Council scheme and the results obtained.

Clinical Report (Tuberculosis) for 1923.

The year 1923 has shown a consolidation of the work done in former years and the Dispensaries have again been busy centres of activity in examining and treating new and old cases referred by their own medical men or the County Staff. The welcome fall in the number of notifications and of deaths from Pulmonary Tuberculosis, commented on last year, has continued and seems to indicate that some sort of real control is being gradually established over this form of the disease. The primary notifications of Pulmonary Tuberculosis (not Institutional) were down to 578 or 50 less than the "previous lowest" on record.

The deaths from pulmonary Tuberculosis were 23 less than in 1922 thus confirming the above opinion, but the deaths from non-Pulmonary Tuberculosis were actually increased by 11. If, as there is reason to think, this death rate is concurrent with an "impure milk" rate, this figure would urge the importance of further action in the encouragement of a purer supply of milk in the County.

On examination, the 1439 new cases seen in 1923 for the first time were diagnosed as follows :—

Pulmonary Tuberculosis.	Stage 1.	208.
	Stage 2.	195.
	Stage 3.	76.
		479
Non Pulmonary Tuberculosis.		69
Not Tuberculous.		757.
Still under observation		134.
		1439.

Of the above, 163 were ex-service men.

This table shows that of all the "Pulmonary" cases sent up for first examination 15 per. cent. were in the very earliest stages, 14 per. cent. were more marked and 6 per. cent. were already advanced and incurable. It is gratifying to note that this latter figure is the lowest yet recorded and every credit should be given to those medical men who suspected and sent cases for examination before the disease had had time to get a secure hold on its victim.

The greatest comparative number of incurable cases came from one of the Dispensary areas in the North of the County, and a special investigation classified them as follows :—

Men	6 in Urban and 5 in Rural District.
Women	8 in Urban and 2 in Rural District.

Of these, no less than 8 were imported cases, who only came into the County to die, 2 were soldiers who had been long ill with other diseases, 2 were cases of acute and violent Tuberculosis, 5 had not seen a doctor at all until the disease was past cure owing to its insidious and gradual onset, and 4 had been under their doctor for a considerable period without the nature of the complaint being diagnosed or steps taken to exclude its presence.

The tables showing the end results of treatment under the County scheme are now more striking than ever and no less than 194 cases have been added to the list of "patients restored to full working capacity" during the year. This brings the percentage up to 54 per cent. (58 per cent. if "removals" are excluded from the Table).

Children show the happiest results of any class and it is gratifying to record that 82 per cent. of all the children we have ever treated (removals excluded) are now on full school or full work. The result of early and appropriate treatment to these 1234 boys and girls is simply incalculable.

The County Sanatoria have again proved their worth and more especially since the loss of a number of our outside beds through closing down of other Institutions.

The Voluntary Care Committees and the Health Visitors have again carried on their invaluable work for the scheme in personal contact with the patients.

The open-air shelters have been very useful. Those that are now worn out after long use are being sold to save further expense and new ones obtained as required.

L. J. SHORT.

TABLE XV.

Admissions to Sanatoria during 1923.

Sanatorium.	Men.		Women.	Children.
	Civilian.	Ex-Service.		
Burrow Hill Colony	—	4	—	—
Compton Bishop	—	—	—	25
Cranham Lodge	32	2	39	—
Delamere Training Colony	—	1	—	—
Didworthy	14	2	—	—
Heather Torr	—	—	—	2
Oak Bank	—	—	—	5
Peppard Common	1	2	—	—
Preston Hall Colony	—	2	—	—
Romsley Hill	—	—	13	—
Shepton Mallet	—	—	35	—
Taunton	18	5	16	—
Templecombe	—	—	—	16
Wincanton	24	9	—	—
Winsley	3	—	1	—
	92	27	104	48

TABLE XVI.

Cases Treated through the County Dispensaries.

Dispensary.	Persons treated at Dispensaries during 1923.		Under treatment at Dispensaries, Dec. 31st, 1923.		Total Dispensary Attendances, 1923.
	Insured.	Uninsured.	Insured.	Uninsured.	
Bath (City Cases)	264	166	33	71	1,876
Bath (County Cases)	17	37	2	9	224
Bridgwater	7	70	6	37	1,024
Bristol	18	72	7	30	555
Chard	8	40	4	30	400
Clevedon	20	24	13	15	417
Frome	19	50	5	42	417
Glastonbury	30	56	30	56	502
Langport	27	60	20	39	302
Minehead	49	91	44	85	787
Radstock	22	69	14	63	571
Shepton Mallet	6	15	5	6	119
Taunton	5	177	1	125	1,341
Wellington	10	30	7	27	440
Weston-super-Mare	41	63	29	47	908
Wincanton	7	47	1	12	306
Yeovil	102	116	16	17	968
Totals	652	1,183	237	711	11,157
	1,835		948		

TABLE XVII.

Condition of All Cases Acepted for Treatment under the County Council Scheme.

	Accepted during	Working.	Working occasionally.	Not Working.	Dead.	Lost Sight of or Moved from County.	Total.
Men	1912-1916	257	13	16	382	66	734
	1917-1921	468	59	82	310	76	995
	1922	74	6	27	32	7	146
	1923	55	12	40	13	2	122
Women	1912-1916	290	24	30	287	92	723
	1917-1921	373	56	38	255	63	785
	1922	77	17	13	35	6	148
	1923	60	13	31	20	2	126
Children	1912-1916	321	16	11	37	44	429
	1917-1921	730	36	26	40	55	887
	1922	111	11	27	4	1	154
	1923	72	7	45	3	2	129
Totals		2888	270	386	1418	416	5378

TABLE XVIII.

Cases who have applied for Benefit, excluding Cases sent to Sanatoria.

	Accepted during	Working	Working occasionally.	Not Working	Dead.	Lost Sight of or Moved from County.	Total
Men	1912-1916	128	10	7	230	44	419
	1917-1921	198	18	21	117	55	409
	1922	34	2	9	13	4	62
	1923	31	7	11	4	2	55
Women	1912-1916	174	11	12	165	67	429
	1917-1921	199	28	14	120	45	406
	1922	35	9	4	9	5	62
	1923	34	6	10	12	1	63
Children	1912-1916	253	14	6	27	34	334
	1917-1921	537	28	17	28	43	653
	1922	80	8	13	3	1	105
	1923	59	6	22	2	1	90
Totals		1,762	147	146	730	302	3087

TABLE XIX.

Cases who have Applied for Benefit and have been sent to Sanatoria, excluding Shepton Mallet, Taunton, and Wincanton.

	Accepted during	Working.	Working occasionally.	Not Working.	Dead.	Lost Sight of or Moved from County.	Total.
Men	1912-16	113	2	5	79	19	218
	1917-21	197	22	24	60	14	317
	1922	31	3	6	2	2	44
	1923	21	5	17	1	—	44
Women	1912-16	100	11	5	56	21	193
	1917-21	132	16	10	34	11	203
	1922	29	6	3	3	1	42
	1923	22	3	8	—	1	34
Children	1912-16	64	2	3	6	9	84
	1917-21	182	7	8	4	11	212
	1922	29	3	11	—	—	43
	1923	13	1	18	—	—	32
Totals		933	81	118	245	89	1,466

TABLE XX.

Cases who have Applied for Benefit and have been sent to Shepton Mallet, Taunton and Wincanton Sanatoria.

	Accepted during	Working.	Working occasionally.	Not Working.	Dead.	Lost Sight of or Moved from County.	Total.
Men	1912-16	16	1	4	73	3	97
	1917-21	73	19	37	133	7	269
	1922	9	1	12	17	1	40
	1923	3	—	12	8	—	23
Women	1912-16	16	2	13	66	4	101
	1917-21	42	12	14	101	7	176
	1922	13	2	6	23	—	44
	1923	4	4	13	8	—	29
Children	1912-16	4	—	2	4	1	11
	1917-21	11	1	1	8	1	22
	1922	2	—	3	1	—	6
	1923	—	—	5	1	1	7
Totals		193	42	122	443	25	825

TABLE XXI.

Condition of All Cases Accepted for Treatment—Percentages.

	Accepted during	Working.			Not or only Occasionally Working			Dead.			Lost sight of or Moved from County.		
		San. Cases	Non. San Cases.	All Cases	San. Cases	Non. San Cases.	All Cases	San. Cases	Non. San Cases	All Cases	San. Cases	Non. San Cases.	All Cases
Men	1912-16	41	31	35	4	4	4	48	55	52	7	10	9
	1917-21	46	48	47	17	10	14	33	29	31	3	13	8
	1922	48	55	51	26	18	22	23	21	22	3	6	5
	1923	36	56	45	51	33	43	13	7	11	—	4	1
Women	1912-16	39	41	40	11	5	7	41	38	40	9	16	13
	1917-21	46	49	48	14	10	12	35	30	32	5	11	8
	1922	49	56	52	20	21	20	30	15	24	1	8	4
	1923	41	54	48	44	25	35	13	19	16	2	2	1
Children	1912-16	71	76	75	7	6	6	11	8	9	11	10	10
	1917-21	83	82	82	7	7	7	5	4	5	5	7	6
	1922	63	76	72	35	20	25	2	3	2	—	1	1
	1923	33	66	56	61	31	40	3	2	2	3	1	2
1912-23 Cases	Men	44	41	43	16	9	13	36	39	37	4	11	7
	Women	44	46	45	16	10	12	35	32	34	5	12	9
	Children	73	79	77	16	9	11	6	5	5	5	7	7
		49	57	54	16	9	12	30	24	26	5	10	8

SECTION III. GENERAL SANITARY ADMINISTRATION.

Water Supplies.

Very few changes have to be reported. The most important is the provision of a new supply for Weston-super-Mare from Banwell. This was in hand all the year but not completed until 1924.

At Glastonbury in October and November a 12 inch bore hole was put down at West Compton near the springs which form the main supply. A very large amount of water was obtained and steps are being taken to connect this with the present supply. At Taunton the shaft at Forches Corner had to be discontinued owing to twisting of the staff. A scheme for its reconstruction at an estimated cost of £300 was approved in August and later the work put in hand. At Wells a bore hole is being sunk some 500 feet from the existing spring to augment the present supply which is short in the dry times of the year. Proposals to increase the supply for Yeovil Borough are also under consideration. In the Rural districts supplies for a few parishes have been improved or fresh supplies installed.

While there are many excellent supplies there are a good many rural parishes in the County and some larger Urban areas with an insufficient or unsatisfactory water supply. Nearly all the Urban areas with an inadequate supply realise the position and are making efforts to either improve existing supplies or to obtain new ones. Progress however is very slow in many cases, and year after year the same deficiencies have to be chronicled. The position is much worse as regards the rural areas without a water supply since for many of these no effort whatever is being made to obtain a pure supply. In a number of cases there is a real financial difficulty, but in others this could be overcome, while for all it may be said that a pure water supply is of the greatest benefit to public health and is well worth paying for.

It is very unsatisfactory that so many parishes are still without a pure water supply.

RIVER POLLUTION AND SEWERAGE.

For the most part the pollution of the rivers in the County from manufacturing liquors or from sewage-effluents is not large and what contamination does get in is readily dealt with and oxidized by the fresh water. The conspicuous exception to this has been the pollution from Milk depots dealt with below. Considerable trouble has been experienced at Yeovil from the pollution of a stream from stone dust produced on the working of a large stone cutting factory. Ultimately legal proceedings had to be resorted to to compel efficient treatment. In a few other cases trouble has been experienced with effluents from manufacturing works but improvements have been effected without resort to legal action. A small number of sewage treatment works in the County have not been working efficiently and action has been taken to improve the conditions. Throughout the year steps were taken by the Taunton Borough Council to remodel their Sewage Treatment Works but progress has been very slow.

Very few complaints as to river pollution have been received. Many visits of inspection have been paid to the rivers and to the different purification works, and a good many samples collected nd examined in the County Laboratory.

Pollution of Streams from Milk Depots. This important matter was dealt with fully in my Report for 1920. The conditions as regards river pollution from these depots have been vastly improved, due to the determined policy of the County Council to put a stop to this very detrimental type of pollution. In 1921 proceedings were initiated against the owners of five of these Depots, a further case was taken during 1922, and the following in 1923 :—

The Local Inquiry by the Minister of Health in 1922 in connection with the Bason Bridge Milk Depot resulted in permission to take proceedings being given in 1923. The owners of the factory then put in hand adequate treatment works which were started during the year but not completed until the middle of 1924.

In two other cases (Sparkford and Norton St. Philip) it was necessary to apply to the Ministry to take proceedings and Inquiries by an Inspector of the Ministry were held and permission to take proceedings given in due course.

In a further case (Stoke Lane) application to the Minister of Health to take proceedings was made but was withdrawn in view of the fact that the Company put down comprehensive treatment works.

In another case where the whey and milk washings had hitherto been treated at the sewage works of the town in which situated the Milk Company is putting down large treatment works.

The different treatment works which have been installed as a result of the pressure of the County Council have been frequently inspected and for the most part found to be working in a satisfa tory manner. All of them are dealing with milk washings only. As was pointed out last year there are no satisfactory methods of treating whey by any economical process of purification but milk washings are a much simpler proposition.

ADMINISTRATION OF THE HOUSING ACTS.

The 1921 Census Returns for Somerset have now been published and supply some interesting figures in regard to housing.

While the number of families has increased between the two census periods by 6,605 the size of the families has gone down from 4.13 to 3.91. Indeed there has been a decrease of 2,829 in the families of 5 or over and all the increase (9,434) has been in families of 4 persons or less. This decrease in the size of families has had the effect of diminishing the number of persons per room throughout the County as compared with 1911, although the figures show a decrease in housing accommodation. In other words, the diminution in the size of families has more than counterbalanced the shortage of houses so that the density per room is less. The census returns give the figures in the form of the average number of occupied rooms per person and this has improved from 1.24 to 1.28. This would be satisfactory if it was spread uniformly over the County, but being averages they do not disclose actual conditions. We have so many cases where 3 or 4 persons occupy a 10 room house that they make the average number of persons per room seem quite reasonable. A "room" in the Census Return includes the kitchen and parlour as well as bedrooms but not the scullery.

The average number of families per house has increased from 1.03 in 1911 to 1.06 in 1921. This may seem very little but it is equivalent to a deficiency of 2,700 dwellings.

Compared with 1911 the figures show a definite deterioration of housing accommodation in 1921, this being especially noticeable in the Urban areas. In 1911 housing conditions were far from satisfactory both as regards quantity and quality. The shortage was not then however nearly as acute as at the present time. All these figures are based upon the number of rooms per person and that is a very crude test of overcrowding, while of course the figures can take no account of the condition of the houses.

Information available from different sources shows that there is little or no decrease in the overcrowded conditions which are prevalent in many parts of the County.

Comparatively little new housing construction has taken place during the year except in a few favoured spots. The effect of the 1923 Housing Act has been comparatively slight. Up to the end of the year in the Urban Districts only 206 houses have been authorised for subsidies and only in 40 of these was construction commenced. In the Rural Districts 88 have been authorised for subsidies and the construction of 38 was commenced. These facts show that the response has been very trifling, only 294 houses in all. No doubt more will be subsidised under this Act in 1924 but it is unlikely that more than a very few houses will be provided in Rural areas under this scheme unless considerable subsidies are also added out of local rates. In the majority of cases the Local Authority was only prepared to hand on the Government subsidy, but in a number of instances this was added to up to £100, or in one case up to £120 per house for special conditions.

Table XXII shows the extent to which systematic inspection of housing has been carried on during the year under review. While it shows a considerable number of houses inspected it is really a very small proportion. A certain amount of improvement is effected in this way, but defective houses are numerous. Great difficulty is experienced in getting the houses repaired, partly owing to the shortage of skilled workers, and partly to the low rent obtained.

Very little is being done in the County in regard to systematic schemes of town planning. In many urban areas growth is very slow and is likely to remain so and such schemes are not much needed. On the other hand with towns which are growing rapidly it is of great importance from every point of view that such increase should not follow the haphazard lines of the past resulting in unsightly, insanitary and congested areas but should be planned in advance. There are abundant powers under the 1919 and 1923 Housing Acts to do this and some obligations. Every Urban area with a population over 20,000 must prepare a scheme by the end of 1925.

One Medical Officer of Health (Minehead) discusses this important question. He strongly draws attention to the need for a comprehensive scheme for Minehead with maintenance of open spaces and the avoidance of the unnecessary crowding of houses. This town, and other seaside resorts, would benefit greatly by being developed along town planning lines.

HOUSING

TABLE XXII

Sanitary Area (Urban).	Systematically Inspected under Housing Acts.			Houses built	Houses Closed as unfit.
	Inspected	Found unfit.	Defective not unfit		
Bridgwater	73	0	73	0	0
Burnham	0	0	0	30	0
Chard	62	4	54	2	0
Clevedon	34	7	27	13	0
Crewkerne	50	0	30	1	0
Frome	96	1	78	12	0
Glastonbury	92	8	22	10	8
Highbridge	340	0	19	3	0
Ilminster	12	0	7	6	0
M'somer Norton	24	0	9	8	0
Minehead	7	2	5	47	2
Portishead	21	0	19	8	0
Radstock	0	0	0	24	0
Shepton mallet	43	4	31	7	2
Street	0	0	0	3	0
Taunton	40	0	5	19	0
Watchet	4	0	0	3	0
Wellington	0	0	0	3	0
Wells	0	0	0	1	0
Weston-s-Mare	175	0	161	44	0
Wiveliscombe	7	1	2	2	0
Yeovil	136	2	0	25	2
Total	1,216	29	542	271	14

Sanitary Area (Rural).	Systematically Inspected under Housing Acts.			Houses built.	Houses Closed as unfit.
	Inspected	Found unfit.	Defective not unfit		
Axbridge	5	5	0	37	5
Bath	48	2	29	15	0
Bridgwater	33	3	26	26	1
Chard	10	1	9	9	1
Clutton	186	15	70	22	0
Dulverton	21	0	3	8	0
Frome	340	2	30	4	0
Keynsham	38	0	38	18	0
Langport	248	11	165	18	6
Long Ashton	0	0	0	103	0
Shepton Mallet	305	0	118	4	0
Taunton	0	0	0	21	0
Wellington	341	2	185	3	0
Wells	0	0	0	7	0
Williton	69	0	14	23	0
Wincanton	10	0	10	28	0
Yeovil	0	0	0	29	0
Total	1,654	41	697	375	13
County Total	2,870	70	1,239	646	27

SUPERVISION OVER THE FOOD SUPPLY.

A. **Slaughter-Houses and the Sale of Meat.** At Weston-super-Mare, Clevedon and Minehead public slaughter-houses exist. In the rest of the County, Urban and Rural, all the slaughter-houses are private ones. They are scattered about and in the towns are frequently situated in unsatisfactory proximity to houses. Proper supervision over the meat killed in over 350 different premises is not possible and what is given is very superficial and partial.

There is little or nothing fresh to record in regard to their provision and management.

B. **Milk Supply.** The provision of a pure abundant milk supply is an important object of Public Health Administration. Milk stands in a unique position as regards foods. On the one hand it is an indispensable food for infants and young children and a valuable food for everyone. On the other hand it is a food which is very easily contaminated and is one requiring special care in its production, transit and distribution. In this county it comes into consideration from the agricultural point of view as a material source of income to the agricultural community and it is a matter of importance to obtain and preserve a reputation for the provision of a high grade milk.

The whole problem of the supply of pure clean milk is full of difficulties which are not diminished by the number of Authorities given supervision over it. At least three facts definitely emerge :—

(a) That speaking generally the conditions under which milk is produced and handled are decidedly unsatisfactory in many ways.

(b) That the consumption of milk per head in this country is very low and could be increased with advantage.

(c) That while the inadequacy of the consumption of fresh milk is due to many factors, one important factor is the present dissatisfaction with the cleanliness conditions of production and the risk of the conveyance of disease. This leads to a proportionate increase in the consumption of condensed or other forms of preserved milk.

These facts being accepted it is obvious that it is to the interest both of Agriculture and Publi Health that conditions should be put upon a better footing. A very large quantity of milk is los owing to premature souring, due entirely to want of proper care in milking and of the milk afte production.

The Milk and Dairies (Amendment) Act, 1922, which came into force on September 1st of that year, gives certain additional powers over the control of milk, mainly as regards producers of milk.

As regards what is being done to improve the conditions of the milk supply separate consideration is required for distributors and producers.

Distributors. A Local Authority can now refuse to register as milk sellers purveyors whose premises are unsatisfactory. In a circular letter dated January 1923, the County Council suggested to Local Authorities that no purveyor of milk should be registered unless he had facilities for—

(a) Efficient means of cleansing his milk vessels by steam or boiling water.

(b) A suitable place to store milk vessels and allow them to dry after cleansing without contamination.

(c) Suitable storage for milk. This is necessary, even when the milk is taken by the purveyor direct from the farm, as some is not sold and has to be kept for the next milk round.

These are minimum conditions and should be complied with by every distributor.

Considerable variations are shown throughout the County as regards the conditions of distributors' premises and the ways in which milk is handled. While there are intermediate grades the distributors can be classified into four groups :—

(a) The large distributors who collect milk from many producers and who send it away to the large centres of population and do not distribute any locally. As a rule the condition of their premises is satisfactory.

(b) Distributors who do a considerable local trade buying from several milk producers and usually having no cows of their own. Most of them have separate dairies in the town. As a rule their premises are reasonably satisfactory, but I have come across a good many who have failed to comply even with the 3 simple requirements set out above. Most of these, however, have now altered and do conform.

(c) Distributors who sell milk produced by their own cows and who have no distributing dairy in the town. These have to be judged on their merits as producers of clean milk and on the way they handle their vessels. Some of them are by no means up to standard.

(d) Shops who deal with many commodities, including milk, and who rarely sell more than 4 to 6 gallons a day. The sale of milk helps to bring trade and this is the inducement rather than any profit from the milk itself. The condition of these premises in the past has frequently been most unsatisfactory. Under the powers of the 1922 Act, Local Authorities in the County have refused to allow a number of these shops to sell milk, or where they do sell it the concurrent sale of dusty articles like fresh vegetables has been prohibited. When only a few articles such as dairy produce are also sold there is no particular objection to milk being sold, but there are all stages between these and shops which sell all manner of articles including many which are very dusty. Although most of the worst have been eliminated, and the condition of many others improved, there are still a few of these premises which the Local Authorities are allowing to be used for the sale of milk which in my opinion, are not suitable for the purpose.

Improvements have also been effected by insisting on proper covers for milk vessels, protection from flies and improved facilities for storing and cleaning the vessels.

I have inspected distributors premises all over the County and undoubtedly the Act has been instrumental in improving conditions. The distribution of milk is, however, still in the hands of too many men with insufficient capital who have but the vaguest idea of what are the requirements necessary for the handling of milk under conditions of cleanliness. Very little milk is sold in bottles.

Producers. It is very desirable that a uniform system of requirements should be in force throughout the County. It is also important that farmers should have a clear idea as to what is required of them and the directions in which they are asked to improve matters.

To facilitate the work I drew up in 1922 a very simple form of Milk Report Card. It has to be simple enough to enable Inspectors to work through quickly the enormous number of producers they have to supervise, while it has to be sufficiently detailed so that no Inspector should miss essentials. This Score Card is reproduced. It will be noted that emphases is laid on methods rather than on equipment. Methods of clean production are in the hands of the milk producer, while as regards equipment he is to a considerable extent in the hands of his landlord. Previous to its introduction the chief emphasis had been laid by Sanitary inspectors on equipment conditions and inadequate attention had been paid to methods of milking. There is no legal requirement that any milk producer should get a certain number of marks. The legal requirements are contained in the Dairy, Cowsheds and Milk Shops Orders and Regulations and it will almost always be found that a producer who is consistently obtaining low marks is breaking several of these Orders and Regulations and any legal action necessary can be taken under them. The importance of the Score Card is mainly educational and is not intended to be punitive.

MILK REPORT CARD.

Address of Farm.....

Occupier of Farm .....

Owner of Farm .....

Total number of cows in herd..... No. in milk.....

Destination of Milk .....

Date of Inspection .....

	Points Allowed.	Given.
Health conditions of animals	10	
Equipment (20)		
Suitability of cowsheds	6	
Water, pure and available	3	
Facilities for cleansing hands, cows and sheds	4	
Suitability of milk room	1	
Milk pail suitability	2	
Provision of milking suits and caps	2	
Cooler	2	
Methods. (A. 50. B. 20).		
A. Cleanliness of approach yard	4	
Cleanliness of cows and udders	12	
Disposal of manure	4	
Condition of cowsheds	12	
Condition of milk room	2	
Storage, care and cleanliness of utensils	16	
B. Care and cleanliness in milking	10	
Efficiency of handling of milk, (straining, cooling, delivery)	10	
	100	

MILK SUPPLY.

TABLE XXIII.

Sanitary Area. (Urban.)	No. of distributors on the Register	No. of producers on the Register	Sanitary Area. (Rural.)	No. of distributors on the Register.	No. of producers on the Register.
Bridgwater	43	9	Axbridge	158	796
Burnham	11	13	Bath	74	130
Chard	12	11	Bridgwater	146	488
Clevedon	20	28	Chard	13	98
Crewkerne	9	6	Clutton	91	311
Frome	31	13	Dulverton	15	30
Glastonbury	19	65	Frome	27	244
Highbridge	4	5	Keynsham	23	98
Ilminster	6	9	Langport	77	381
Midsomer Norton	14	25	Long Ashton	43	272
Minehead	14	7	Shepton Mallet	33	258
Portishead	8	10	Taunton	46	221
Radstock	8	4	Wellington	6	55
Shepton Mallet	13	34	Wells	158	500
Street	20	12	Williton	59	50
Taunton	50	7	Wincanton	24	275
Watchet	5	4	Yeovil	30	260
Wellington	9	33			
Wells	5	0			
Weston-super-Mare	60	6			
Wiveliscombe	4	4	Total.	1023	4467
Yeovil	26	8			
Total.	391	313	County Total	1414	4780

NOTE.—As the Registers are not all complete these figures are an under-statement.

I have been all over the County and have made it a practise to meet Medical Officers of Health and Inspectors and actually inspect a number of milk producers premises in each district. In this way it is possible to establish a considerable degree of uniformity, while this is being controlled by subsequent visits and re-inspections.

At present there are great differences as regards the zeal and thoroughness with which this work is being done in the different areas. One or two Authorities have appointed special Inspectors to assist in the work, while in a number of them the Sanitary Inspectors have adopted the scheme with energy and done a great deal to improve conditions by a system of inspection and educational visits. A good many, however, have done little or nothing and while adopting the principle of the Score Card are making no real attempt to improve conditions. It must be remembered that this work has never been done properly in the past and the working of the different Milk Orders has been largely a farce. It will be seen from Table XXIII which gives the number of producers, that the magnitude of the task is enormous and it is very difficult for Sanitary Inspectors to give adequate attention to this part of their work in view of their many other duties.

The County Council is now given a special interest in this work because under Section **11** of the 1922 Act if a Local Authority fails to perform adequately any of their duties under this or other Milk enactments they can complain to the Minister of Health and after enquiry the Minister of Health may transfer the powers and duties to the County Council. This section therefore throws a special obligation upon County Councils to see that Local Authorities carry out their duties in relation to the control of milk supply.

From the inspection point of view and clean handling of milk it is possible to divide the milk producers into three groups :—

(*i*) Those who are producing milk under the best conditions and with scrupulous cleanliness and who are examples of what milk production ought to be. At the present time these are a small minority but their numbers are increasing.

(*ii*) The great bulk of the farmers who are anxious to produce milk under clean conditions but who are often hampered by unsatisfactory premises and who are not well informed as to what is really wanted to be done to produce clean milk. They are also hindered by the ignorance of their milkers who are not very ready to give up old bad habits which they have practised all their lives.

It is this group in regard to which a good deal of progress is being made. They are usually interested when the system of marking is explained to them and are ready to improve, if slowly, their conditions.

(*iii*) A minority whose methods of production are thoroughly bad. They have no regard for clean conditions and even with good premises their milk is dirty and bacterially heavily contaminated. It is this minority which gives such a bad name to the trade and it is in the interest of public health and the general body of producers that they should be brought to a sense of their inadequacy and either improve up to a reasonable standard or made to go out of the business altogether.

Under the new arrangements a serious endeavour is being made to try and help milk producers. In this work the Agricultural Committee and Agricultural Institute at Cannington are taking great interest. Not much was done in 1923 but to complete the matter it may be mentioned that in the early part of 1924 a number of Milk Demonstrations were given to demonstrate the importance of clean milk and how it could be obtained under ordinary farm conditions and even on premises

which are far from satisfactory. These Milk Demonstrations have undoubtedly done good. It is also proposed to hold in 1924 an extensive Milk Competition which will be educational as well as competitive.

The principle which I should like to see adopted is that the Agricultural Department of the County Council Work should concern itself with the educational work necessary to bring up the production of milk to a reasonable standard and to ensure that this County shall obtain and deserve a high standard as regards the purity and freedom from bacteria of the milk which is sent from it. The Public Health Inspection side would specially deal with that minority of very neglectful milk producers and make them improve their methods.

I am glad to be able to record that during the past year there has been a decided increase of interest on the part of milk producers in the question of clean milk and a realization that it is to their commercial advantage to supply it. Progress is undoubtedly being made and this is increased by the greater interest now being evinced by the more enlightened consumers. Consumers, however, have still to be educated up to the necessary fact that the production of really clean milk costs more and that it is worth paying a little more for it as compared with milk produced not under the best conditions.

Graded Milks. The 1922 Act and various Orders issued by the Ministry of Health provide for the sale of various classes of milk under the terms "Certified," "Grade A. Tuberculin Tested," "Grade A." and "Pasteurised" milk. It cannot be said that much progress has so far been made in the County in regard to the sale of these specially labelled milks. Up to the end of 1923 there was only one producer of "Certified" milk, 1 of "Grade A. Tuberculin Tested," and 0 of "Grade A" milk. There were, however, several milk vendors licensed to sell "Pasteurised" milk.

It is unlikely that the production and sale of these varieties of milk will make much headway until further education of the consumers has been effected. In any case, it is of greater importance to try to improve the general conditions under which milk is supplied than to increase the number of producers of these specially designated milks.

C. **Administration of the Sale of Food and Drugs Acts.** During the year 1090 samples were examined. Of these 14 were submitted by private individuals and firms and 27 were "Appeal to cow" samples. The following table shows the nature of the 1049 samples examined, excluding these 41 samples.

TABLE XXIV.

Articles.	Number examined.	Number. genuine.	Number suspicious.	Number adulterated.	Per cent adulterated
Dairy Products —Milk	505	452	24	29	5.75
Cream	14	13	0	1	7.15
Cheese	28	28	0	0	0
Butter	50	50	0	0	0
Condensed Milk	10	10	0	0	0
Edible Fats	30	30	0	0	0
Cereals	69	69	0	0	0
Meat and Fish Products	37	37	0	0	0
Tea, Coffee and Cocoa	40	40	0	0	0
Condiments	54	53	0	1	1.85
Sugar and Saccharine Products	22	22	0	0	0
Miscellaneous Groceries	30	29	0	1	3.3
Beer, Spirits and Wine	97	93	0	4	4.1
Drugs	63	59	0	4	6.35
Total	1,049	985	24	40	3.8

The samples adulterated were mostly milk as shown in the Table, the adulteration of other products being very few. 29 milk samples were reported as adulterated. No legal proceedings were taken in 11, 8 were dismissed, while in 10 convictions were obtained.

PUBLIC HEALTH LABORATORY.

The Laboratory continues to be extensively made use of by the different Local Authorities for the examination of water supplies, sewage samples, diagnosis of infectious cases, etc. It is also very valuable in connection with Tuberculosis, School Work, Venereal Diseases and other work directly under the County Council.

During the past year 4914 samples have been examined (excluding all food and drug samples) as follows :—

Drinking water—Bacteriological examinations	442
Chemical analyses	24
Sewage, sewage effluents, rivers and streams	42
Swabs for diphtheria bacilli	1,986
Sputum for tubercle bacilli	1,219
Blood for typhoid, paratyphoid, etc.	34
Hairs and skin for Ringworm	390
Specimens for venereal disease	524
Urine for tubercle bacilli, B. coli, sugar, albumin, casts, etc.	46
Faeces for typhoid and dysentry	32
Milk for mastitis, etc.	7
Milk for tubercle bacilli	41
Milk for bacteriological examination (general)	67
Milk Grade A, Grade A certified, etc.	4
Cerebro-spinal fluid	9
Other specimens	47
Total	4,914

Of the 1,986 swabs examined, 363 showed the presence of diphtheria bacilli ; of the 1,219 specimens of sputum, 258 contained tubercle bacilli ; of the 34 specimens of blood, 10 gave a positive Widal reaction ; of the 390 specimens of hair, 253 contained ringworm fungi ; and of the 524 specimens for venereal disease, 70 contained gonococci.

Under the heading "other specimens" the following are included : Glands, fluids, faeces and pus for tubercle bacilli, and other organisms ; blood for malaria parasites, leukaemia and organisms ; tissues for anthrax and tetanus bacilli ; swabs for virulence of diphtheria bacilli.

There has been a big increase in the number of samples of milk examined for general bacterial quality and for the presence of tubercle bacilli.

MATERNITY AND INFANT WELFARE.

Milk Grants. Throughout the year milk was granted to necessitous cases under the Milk (Mothers and Children) Orders of the Ministry of Health. Grants were made to 1,629 cases at an estimated cost of £590. 78 fewer cases were assisted than in 1922 although the cost was £27 more. Grants were continued longer in some cases.

These milk grants are not doles, *i.e.*, contributions to the general family income, but they are grants made to mothers or infants, each given for a specific purpose. A little money wisely so spent may make all the difference to the health of children and is an economical expenditure. Public Health considerations must govern the distribution within reasonable financial limits. Of the grants made about 13 per cent. were to expectant mothers, 48 per cent. to nursing mothers, 34 per cent. to children under 1 year, and 5 per cent. to children 1 to 5 years of age. Great care is taken to prevent abuse and to see that the milk is taken only by the person for whom it is intended.

Travelling Exhibition. Owing to the diminution of staff this was not exhibited in the County during the year.

Bridgwater Infant Welfare Work. The following gives some particulars of the work.

Home Visiting.	No. of babies on visiting list	282
	No. of older children ,,	38
	No. of first visits paid	330
	Total visits paid to infants	3740
	Total visits paid to older children	331
	Total visits paid during 1923	4071

Miss Wood, the Infant Visitor, considers that considerable educational progress is being made, but the Mothers are very slow to take advantage of the teaching.

Milk Grants. The estimated cost of this part of the work in Bridgwater was £113, 112 grants being made. As far as possible it is made a condition that cases receiving milk attend at the Centre so that the benefit of the grants can be estimated.

Births. During 1923 the number of births notified was 372, of these 250 were attended by Midwives. A doctor was called in to help the Midwife in 97 cases.

Centre.	Average weekly attendance of mothers	30.
	of babies and children	31.
	of expectant mothers	6.

Dr. Lily Baker the Medical Officer, attended every alternate week. The number of infant consultations varied but was generally about 25. Total number of infant consultations 552. Her work is valuable and is much appreciated.

Talks to mothers given alternate weeks have been a regular feature. Three pupils from the Mary Stanley Training Home attend each Clinic and assist in the work and gain experience for themselves.

There is a very helpful Voluntary Committee which provides voluntary workers for the Centre. Virol, Dried Milk, and Feeding Bottles are only supplied at the Centre at cost price ; suitable cases are helped out of local funds.

It is of interest to see if statistics support the intensive Infant Welfare work carried out in Bridgwater. The following Table gives the Infantile Mortality figures since 1911.

Year.	All Somerset Urban Districts	Bridgwater Borough.	Percentage Bridgwater rate above or below County Urban Rate.
1911	99.5	122.6	+23
1912	69.4	76.1	+ 9
1913	81.8	100	+22
1914	71.3	91.8	+29
1915	86.6	86.6	0
1916	62.2	55.3	−12
1917	73.4	116.9	+59
1918	61.4	76.1	+24
1919	68.7	77.5	+13
1920	53.6	61.9	+15
1921	55.0	48.4	−12
1922	50.0	47.2	− 6
1923	44.5	42.9	− 4

Infant Welfare work in Bridgwater was not under the County Council until 1921. Previous to 1915 no infant visiting was done and no special efforts were made to control infant welfare and infant mortality. In that year a Health Visitor was appointed but only a small and inadequate part of her time was devoted to Infant Welfare work and the work was unsatisfactory. From 1918 she devoted more of her time to this work but no Infant Centre was established. Owing to the inadequacy of the work done in relation to infant welfare the Ministry of Health transferred the work to the County Council in 1921. A trained Health Visitor was appointed at the end of June and an Infant Welfare Centre was started at the end of 1921. Since that date vigorous and sustained infant and child welfare work has been carried out in Bridgwater.

The rates for the urban districts in the County have declined in a very satisfactory way but the Bridgwater rate has declined still faster. The table shows that instead of being above the rate for the Urban districts as a whole, as was nearly always the case in the past, for the last 3 years the rate has been distinctly *below* the Urban rate. During the last two years there has been a great deal of unemployment in Bridgwater and owing to housing and other local conditions it is to be anticipated that the Bridgwater rate would be slightly above the urban average. I cannot but regard this special drop in the infant mortality rate as directly traceable to the intensive educational and welfare work adopted. The actual rate is less than half what it was ten years previously.

Work of Infant Visitors. The work has been on the same lines as in previous years.

The births during 1923 were referred for visits as follows :—

	Rural.	Urban.	Total.
Whole-time County Staff	761	420	1181
District Nurses	3198	1437	4635
	3959	1857	5816

Special supervision is given to illegitimate children, while all the Infant Visitors are instructed to give their chief attention to the cases which from their earlier visits they find need special attention. Some cases, for example, are visited only every 3 to 4 months, others perhaps twice a month.

Supervision is only continued for one year regularly but all cases which are considered to require further visits are followed up for one or more years, fresh cards being issued. During the year supervision was continued in 69 cases.

The causes of deaths of infants under one year of age are given in Table A (at end of Report). This Table does not give the months of death but this is set out in the following table :—

TABLE XXV.

DEATHS UNDER 1 YEAR OLD.

URBAN.	Under 1 week.	1—4 weeks (inclusive).	Total under 1 month.	1—6 months.	6—12 months.	Total Deaths under 1 year.
Bridgwater	4	1	5	2	0	7
Burnham	2	0	2	1	0	3
Chard	1	1	2	1	0	3
Clevedon	1	1	2	1	2	5
Crewkerne	2	1	3	2	0	5
Frome	3	2	5	1	3	9
Glastonbury	0	1	1	2	2	5
Highbridge	0	0	0	1	0	1
Ilminster	0	0	0	0	0	0
Midsomer Norton	2	0	2	0	2	4
Minehead	1	1	2	0	1	3
Portishead	1	1	2	0	0	2
Radstock	3	0	3	0	0	3
Shepton Mallet	4	0	4	1	0	5
Street	3	0	3	0	0	3
Taunton	10	0	10	4	8	22
Watchet	0	0	0	0	0	0
Wellington	6	0	6	0	0	6
Wells	1	0	1	1	0	2
Weston-super-Mare ..	2	1	3	3	6	12
Wiveliscombe	1	1	2	0	0	2
Yeovil	3	1	4	3	2	9
Totals	50	12	62	23	26	111

RURAL.	Under 1 week.	1—4 weeks (inclusive).	Total under 1 month.	1—6 months.	6—12 months.	Total Deaths under 1 year.
Axbridge	7	3	10	2	5	17
Bath	6	2	8	5	1	14
Bridgwater	12	3	15	8	1	24
Chard	4	3	7	5	4	16
Clutton	5	4	9	3	2	14
Dulverton	3	1	4	3	2	9
Frome	4	5	9	1	1	11
Keynsham	3	1	4	0	4	8
Langport	3	1	4	2	1	7
Long Ashton	3	1	4	4	2	10
Shepton Mallet	2	1	3	0	3	6
Taunton	2	2	4	3	5	12
Wellington	0	0	0	1	0	1
Wells	9	1	10	5	5	20
Williton	3	1	4	1	0	5
Wincanton	6	1	7	2	4	13
Yeovil	4	1	5	1	3	9
Totals	76	31	107	46	43	196

These figures do not exactly correspond with those in table A, as the latter is taken from the Registrar General's figures, and this Table is from figures given by the District Medical Officers of Health obtained from the local Registrars.

This Table shows that 169 of the 307 deaths under one year of age took place before the child was a month old. This is 55 per cent., and of these 75 per cent., took place before the infant was a week old. In other words, a large proportion of the deaths are pre-natal in origin, and illustrates the importance of pre-natal work.

The following two Tables give information as to the feeding, etc., of a number of the infants aged 3 and 4 months.

TABLE XXVI.

RURAL DISTRICTS.

Infants 3 and 4 Months Old.

DISTRICT.	Number of Births summarised.	Attended by		If child has a separate cot.		Feeding Methods.			Mode of Feeding.				Percentage entirely breast fed.
		Doctor	Midwife.	Yes.	No.	Breast entirely.	Breast partially.	Hand fed.	Boat.	Tube.	Spoon.	Otherwise.	
Axbridge	203	99	104	114	89	126	21	56	61	2	2	12	62.07
Bath	170	94	76	117	53	114	26	30	43	—	8	5	67.06
Bridgwater	211	84	127	145	66	126	31	54	68	6	4	7	59.72
Chard	111	37	75	59	52	62	16	33	42	2	2	3	55.86
Clutton	162	89	73	107	55	120	13	29	39	—	1	2	74.07
Dulverton	52	25	27	29	23	35	6	11	15	—	1	1	67.31
Frome	102	59	43	56	46	62	11	29	32	2	2	4	60.78
Keynsham	93	52	41	59	34	63	9	21	28	1	—	1	67.74
Langport	167	70	96	119	48	114	13	40	47	1	—	5	68.26
Long Ashton	166	70	96	80	86	119	16	31	41	1	—	5	71.69
Shepton Mallet	84	43	41	61	23	57	9	18	22	1	1	3	67.86
Taunton	216	107	109	136	80	150	17	49	59	—	—	7	69.44
Wellington	59	24	35	32	27	44	5	10	11	1	—	3	74.58
Wells	114	88	26	57	57	67	13	34	42	1	—	4	58.77
Williton	119	38	81	75	44	70	16	33	45	—	1	3	58.82
Wincanton	185	109	76	128	57	113	23	49	64	—	3	5	61.08
Yeovil	174	82	92	127	47	104	17	53	62	4	—	4	59.77
Total	2,388	1170	1218	1501	887	1546	262	580	721	22	25	74	64.74

TABLE XXVII.

URBAN DISTRICTS.

Infants 3 and 4 Months Old.

DISTRICT.	Number of Births summarised.	Attended by		If child has a separate cot.		Feeding Methods.			Mode of Feeding.				Percentage entirely breast fed.
		Doctor.	Midwife.	Yes.	No.	Breast entirely.	Breast partially	Hand fed.	Boat.	Tube.	Spoon.	Otherwise,	
Bridgwater	215	57	158	71	144	139	33	43	58	4	5	9	64.65
Burnham	30	13	17	16	14	21	1	8	9	—	—	—	70.00
Chard	59	29	30	31	28	38	5	16	15	—	—	6	64.41
Clevedon	50	26	24	44	6	35	2	13	14	—	—	1	70.00
Crewkerne	53	29	24	36	17	25	8	20	24	2	—	2	47.17
Frome	126	95	31	106	20	94	1	31	24	—	—	8	74.60
Glastonbury	53	45	8	40	13	28	5	20	22	—	—	3	52.83
Highbridge	31	16	15	18	13	19	4	8	11	—	—	1	61.29
Ilminster	27	13	14	23	4	23	—	4	4	—	—	—	85.18
Midsomer Norton	84	42	42	78	6	68	—	16	16	—	—	—	80.95
Minehead	51	19	32	48	3	41	2	8	10	—	—	—	80.39
Portishead	20	7	13	11	9	13	3	4	5	1	—	1	65.00
Radstock	41	25	16	31	10	34	1	6	6	—	—	1	82.93
Shepton Mallet	53	20	33	32	21	37	8	8	15	—	—	1	69.81
Street	61	53	8	55	6	48	1	12	10	2	—	1	78.69
Watchet	16	4	12	7	9	11	2	3	3	—	—	2	68.75
Wellington	70	23	47	56	14	37	6	27	30	2	—	1	52.86
Wells	75	49	26	33	42	48	9	18	25	1	—	1	64,00
Wiveliscombe	28	10	18	14	14	17	3	8	10	—	—	1	60.71
Total	1143	575	568	750	393	776	94	273	311	12	5	39	67.89

The percentage of children breast fed is slightly higher than last year and is 65.7 per cent. The long tube bottle still survives although in diminished numbers. 34 babies out of the total number fed use it (2.8 per cent). The percentage of cases in which the child has a separate cot are 63 in the rural areas and 66 in the urban, very much as in previous years.

Infant Welfare Centres.—at the end of 1923 the Centres in the County, exclusive of those at Yeovil, Taunton and Weston-super-Mare which are outside the County Scheme, so far as I am aware, were :—

Centre.	Day of week opened.	Frequency of Meetings.
Bridgwater	Friday	Every week.
Backwell	Thursday	2nd and 4th Thursday in every month.
Bruton	Tuesday	Alternate weeks.
Chard	Friday	1st and 3rd Friday in every month.
Clevedon	Thursday	Every Thursday except 1st in month. Doctor last Thursdays.
Crewkerne	Tuesday	Alternate weeks.
Frome	Tuesday	Every week.
Long Ashton	Monday	Alternate weeks.
Pill	Tuesday	1st and 3rd Tuesday in every month.
Portishead	Wednesday	2nd and 4th Wednesday in every month.
Shepton Mallet	Friday	Alternate weeks.
Street	Monday	Every week for weighing. 1st Monday in month Doctor's consultation.
Wraxall	Friday	1st and 3rd Friday in every month.
Wellington	Thursday	Every week. 1st Thursday Doctor's day.
Wells	Tuesday	2nd and 4th Tuesday in every month.

Valuable work is being done at these Centres, but the attendances at many of them is not large. Except Bridgwater none are being worked through the County Council, but its Officers are in touch with all of them and, as far as possible, a close connection is maintained between the work of the Centre and the home visits paid by the County Council staff.

Midwives Act. The percentage of 1923 births in the County attended by trained midwives as midwives was 49.3, 3.6 by bona-fide, the remaining 47 per cent being for the most part attended by medical men, a small but uncertain proportion being attended by uncertified women. During the year there has been extention of the midwifery service in the County, a few new Midwifery and Nursing Associations being formed in connection with the Somerset County Nursing Association.

During the year 882 visits of inspection were made to trained midwives and 98 visits to bona-fide midwives, representing an average of 3.1 visits to each trained and 4.7 visits to each bona-fide midwife.

During the year 739 doctors' accounts were paid under the contributory scheme, at a cost of £1,167. 4s. 6d., while the contributory fees were £313. 12s. 0d., the deficit payable by the County Council being £853 12s. 6d. The average doctors' fee per case was £1 11s. 7d. Fees amounting to £35 14s. 6d. were paid in 22 cases not coming under the scheme, and of this £11 18s. 9d. was recovered. Apart from central office expenses, the cost of working this section of the Midwives' Act for 1923 was, therefore, £877 9s. 0d. It undoubtedly has been of great value from the point of view of the welfare of the mother and her child.

During 1923 a doctor was called in under this Act in 25.9 per cent. of cases by the trained and in 9.7 per cent. by the bona-fide midwife. For both classes of midwives together the percentage of cases for which a doctor was called in was 24.8 or practically one case in four.

TABLE A.

Causes of, and Ages at Death during the Year 1923.

Causes of Death.	Nett Deaths at the subjoined ages of "Residents" whether occurring within or without the District.								
	All ages.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years	15 and under 25 years	25 and under 45 years	45 and under 65 years	65 and up wards
Enteric Fever	5	—	—	—	—	2	1	2	—
Small-pox	—	—	—	—	—	—	—	—	—
Measles	16	2	9	4	1	—	—	—	—
Scarlet Fever	7	—	—	3	3	1	—	—	—
Whooping Cough	32	12	7	11	2	—	—	—	—
Diphtheria and Group	12	—	—	3	6	—	2	—	1
Influenza	66	—	3	—	1	1	10	16	35
Encephalitis Lethargica ...	3	1	—	—	1	—	—	1	—
Meningococcal Meningitis ...	4	—	1	1	2	—	—	—	—
Tuberculosis of respiratory system	273	—	—	—	8	69	123	62	11
Other Tuberculous Diseases ...	81	7	9	8	8	12	20	7	10
Cancer, Malignant Disease ...	556	—	—	1	1	2	48	223	281
Rheumatic Fever	12	—	—	—	4	5	1	2	—
Diabetes	41	—	—	—	1	—	5	19	16
Cerebral Haemorrhage, etc. ...	347	1	—	—	—	—	10	87	249
Heart Disease	693	—	1	1	4	9	36	192	450
Arterio-sclerosis	162	—	—	—	—	—	—	29	133
Bronchitis	275	17	3	2	2	1	4	29	217
Pneumonia (all forms)	177	29	14	8	6	2	18	43	57
Other Respiratory Diseases ...	56	1	1	2	—	1	9	16	26
Ulcer of Stomach or Duodenum	45	—	—	—	1	3	7	20	14
Diarrhoea, etc.	58	19	9	2	3	1	6	4	14
Appendicitis and Typhilitis ...	34	1	—	4	4	8	7	4	6
Cirrhosis of Liver	17	—	—	—	—	—	1	13	3
Acute and Chronic Nephritis	141	1	3	—	3	3	17	50	64
Puerperal Sepsis	4	—	—	—	—	—	4	—	—
Other Accidents and Diseases of Pregnancy and Parturition ...	13	—	—	—	—	4	9	—	—
Congenital Debility and Malformation, including Premature Birth	159	153	4	1	—	1	—	—	—
Suicides	42	—	—	—	—	4	16	15	7
Other Deaths from Violence ...	129	5	—	8	7	12	25	36	36
Other Defined Diseases ...	986	63	8	7	18	20	67	159	644
Diseases ill-defined or unknown	8	1	3	—	—	—	—	1	3
	4454	313	75	66	86	161	446	1030	2277

TABLE B.

Causes of Death at all Ages in each District during the Year 1923.

RURAL DISTRICTS.

Causes of Death.	Axbridge.	Bath.	Bridgwater.	Chard.	Clutton.	Dulverton.	Frome.	Keynsham.	Langport.	Long Ashton.	Shepton Mallet.	Taunton.	Wellington.	Wells.	Williton.	Wincanton.	Yeovil.	Total Rural Districts.
Enteric Fever	–	–	–	–	–	–	–	–	–	1	–	2	–	–	–	1	–	4
Small Pox	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Measles	–	–	–	–	–	1	–	1	–	2	–	–	–	–	1	–	–	5
Scarlet Fever	–	1	–	–	–	–	–	–	2	1	–	–	–	–	2	–	–	6
Whooping Cough	3	1	–	1	–	1	1	2	–	–	2	–	–	1	–	3	–	15
Diphtheria	–	1	1	–	–	1	–	–	–	4	–	–	–	–	–	–	–	7
Influenza	3	2	2	3	2	2	1	3	2	3	–	7	2	2	–	3	1	38
Encephalitis Lethargica	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1
Meningococcal Meningitis	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Tuberculosis of respiratory system	19	7	15	10	9	2	5	10	10	7	5	13	5	10	5	8	7	147
Other Tuberculous Diseases	6	1	7	3	3	2	1	1	3	6	1	4	–	1	2	2	1	44
Cancer, Malignant Disease	43	19	23	18	21	7	9	17	22	21	16	29	5	11	16	30	20	327
Rheumatic Fever	–	–	1	2	1	–	–	–	–	2	–	1	1	–	–	1	–	9
Diabetes	3	5	–	1	–	1	1	2	3	4	–	–	1	–	1	4	–	26
Cerebral Haemorrhage, etc.	25	10	22	13	12	2	3	8	23	13	11	13	6	8	7	25	23	224
Heart Disease	54	23	40	24	14	8	32	12	25	28	22	14	11	30	25	23	33	418
Arterio-sclerosis	12	1	7	5	7	3	5	–	2	6	3	3	–	6	4	8	7	79
Bronchitis	10	16	14	8	17	2	5	2	7	5	7	16	4	8	6	8	11	146
Pneumonia (all forms)	8	2	11	6	5	3	3	4	4	20	4	9	1	6	5	4	5	100
Other Respiratory Diseases	8	–	3	1	8	1	5	–	2	4	–	1	–	–	1	4	2	40
Ulcer of Stomach or Duodenum	1	–	–	1	1	–	3	–	3	3	1	–	3	–	1	2	2	21
Diarrhoea, etc. (under 2 years)	–	–	6	1	–	–	–	–	–	–	–	1	–	1	–	1	–	10
Appendicitis and Typhilitis	1	1	1	1	1	–	2	–	2	1	2	2	–	–	2	–	1	17
Cirrhosis of Liver	2	–	–	–	–	–	1	2	2	–	–	–	–	–	–	1	1	9
Acute and Chronic Nephritis	9	12	3	3	5	–	4	2	14	5	3	3	2	1	5	5	3	79
Puerperal Sepsis	1	–	–	–	–	–	1	–	–	–	–	1	–	–	–	–	–	3
Other accidents and diseases of pregnancy and parturition	3	1	1	–	1	–	–	–	1	–	–	1	–	–	–	1	1	10
Congenital Debility & malformation, premature birth	9	7	13	7	9	4	6	2	5	4	4	4	–	11	5	6	3	99
Suicides	2	3	1	–	1	2	1	1	2	3	–	1	–	5	1	–	–	23
Other deaths from violence	13	3	8	2	7	5	7	7	1	4	1	7	2	1	8	3	3	82
Other defined diseases	63	30	67	36	26	16	36	14	45	44	25	45	18	16	39	44	42	606
Causes ill-defined or unknown	–	–	–	1	–	–	–	–	–	1	–	1	1	–	2	–	–	6
All causes	298	146	247	147	150	64	132	90	180	192	107	178	62	118	138	187	166	2602

URBAN DISTRICTS.

Causes of Death.	Bridgwater.	Burnham.	Chard.	Clevedon.	Crewkerne.	Frome.	Glastonbury.	Highbridge.	Ilminster.	Midsomer Norton.	Minehead.	Portishead.	Radstock.	Shepton Mallet.	Street.	Taunton.	Watchet.	Wellington.	Wells.	Weston-super-Mare.	Wiveliscombe.	Yeovil.	Total Urban Districts.	County Total.
Enteric Fever	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	1	5
Small Pox	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Measles	–	–	–	–	–	–	–	–	–	2	–	1	1	–	–	6	1	–	–	–	–	–	11	16
Scarlet Fever	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	1	7
Whooping Cough	–	–	1	1	–	3	–	–	–	1	–	–	–	–	1	6	–	–	1	–	–	3	17	32
Diphtheria	2	–	–	–	–	–	–	–	–	1	–	–	2	–	–	–	–	–	–	–	–	–	5	12
Influenza	3	2	–	–	–	2	–	1	1	2	–	–	–	–	6	2	–	2	1	4	–	2	28	66
Encephalitis Lethargica	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	2	3
Meningococcal Meningitis	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	1	3	4
Tuberculosis of respiratory system	11	6	5	6	1	9	1	3	2	6	6	2	2	4	5	20	1	9	2	14	1	10	126	273
Other Tuberculous Diseases	–	–	3	3	1	1	2	–	–	2	1	3	–	–	2	6	–	3	–	8	1	1	37	81
Cancer, Malignant Disease	26	10	5	16	2	20	6	2	5	11	6	5	3	4	9	29	5	12	6	36	1	10	229	556
Rheumatic Fever	2	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	12
Diabetes	1	–	2	2	–	2	1	–	1	–	2	2	–	–	–	–	1	–	–	1	–	–	15	41
Cerebral Haemorrhage, etc.	8	2	6	5	6	5	2	4	1	6	2	6	2	4	3	15	1	2	3	29	3	8	123	347
Heart Disease	20	9	4	8	8	19	11	7	4	10	13	15	2	2	5	35	–	18	10	53	2	20	275	693
Arterio-sclerosis	8	3	3	5	1	14	2	–	–	10	3	3	–	2	–	4	–	6	5	8	–	6	83	162
Bronchitis	13	2	5	4	2	6	4	1	1	7	1	3	3	4	2	29	2	11	2	20	1	6	129	275
Pneumonia (all forms)	10	1	4	4	4	5	3	–	2	2	6	1	–	–	1	7	–	5	1	12	1	8	77	177
Other Respiratory Diseases	2	3	–	–	–	–	1	–	–	–	1	2	1	–	–	1	–	1	–	2	–	2	16	56
Ulcer of Stomach or Duodenum	2	1	1	1	–	–	–	–	1	–	1	–	–	4	–	1	–	–	1	8	–	3	24	45
Diarrhoea, etc. (under 2 years)	1	–	1	1	1	1	–	–	–	1	1	–	–	1	–	8	–	–	–	1	–	1	18	28
Appendicitis and Typhilitis	1	–	1	–	–	–	1	–	–	1	–	1	–	–	–	2	1	2	1	4	–	2	17	34
Cirrhosis of Liver	–	1	1	–	–	–	–	–	–	–	–	3	–	–	–	–	–	1	–	2	–	–	8	17
Acute and Chronic Nephritis	2	1	–	7	1	4	3	1	2	2	1	1	1	1	1	11	–	2	2	15	1	3	62	141
Puerperal Sepsis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	1	4
Other accidents and diseases of pregnancy and parturition	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–	–	3	13
Congenital Debility & malformation, premature birth	10	2	1	2	3	3	1	1	–	3	–	–	3	3	2	12	–	4	1	5	1	3	60	159
Suicides	1	1	1	–	–	1	–	1	–	–	1	1	–	–	–	3	–	2	2	3	–	2	19	42
Other deaths from violence	8	–	1	2	1	2	–	–	1	1	4	1	1	2	1	8	–	1	2	9	–	2	47	129
Other defined diseases	41	11	17	26	11	18	11	3	5	4	18	15	5	8	12	51	15	23	4	77	4	31	410	1016
Causes ill-defined or unknown	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	2	8
All causes	173	55	62	93	42	116	50	25	26	72	67	65	27	39	50	258	27	106	45	314	16	124	1852	4454